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(74) Agent: CLARK, Paul, T.; Clark & Elbing LLP, 101 Federal Street, Boston, MA 02110 (US).

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(71) Applicant (for all designated States except US): THE GENERAL HOSPITAL CORPORATION [US/US]; 55 Fruit Street, Boston, MA 02114 (US).

(72) Inventors; and

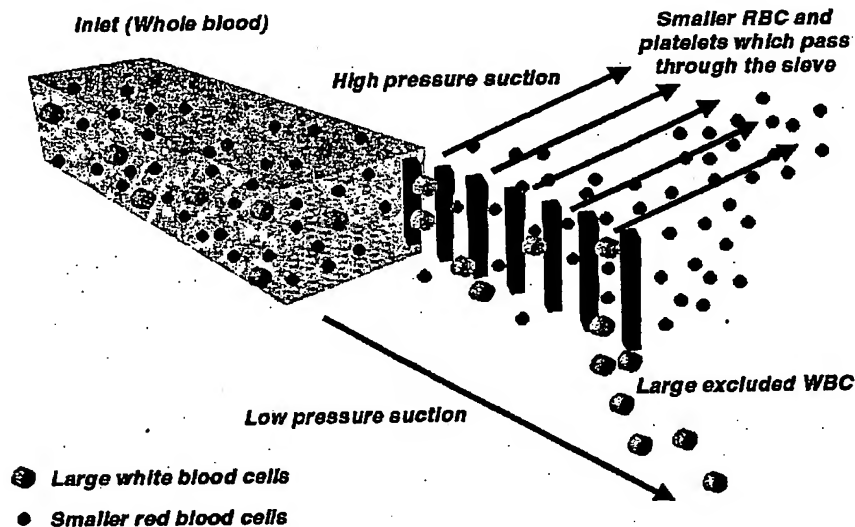
(75) Inventors/Applicants (for US only): SETHU, Palaniappan [IN/US]; 61 Otis Street #2, Cambridge, MA 02141 (US). TONER, Mehmet [TR/US]; 100 Pilgrim Road, Wellesley, MA 02481 (US).

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(54) Title: MICROFLUIDIC SYSTEMS FOR SIZE BASED REMOVAL OF RED BLOOD CELLS AND PLATELETS FROM BLOOD



(57) Abstract: The invention features devices and methods for enriching a sample in one or more desired particles. An exemplary use of these devices and methods is for the enrichment of cells, e.g., white blood cells in a blood sample. In general, the methods of the invention employ a device that contains at least one sieve through which particles of a given size, shape, or deformability can pass. Devices of the invention have at least two outlets, and the sieve is placed such that a continuous flow of fluid can pass through the device without passing through the sieve. The devices also include a force generator for directing selected particles through the sieve. Such force generators employ, for example, diffusion, electrophoresis, dielectrophoresis, centrifugal force, or pressure-driven flow.

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